Summary of Current Economic Conditions

Haida Gwaii / Queen Charlotte Islands

prepared for:
HG/QCI Community Planning Forum

prepared by:
MSRM, Sustainable Resource Development Branch
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1. Introduction

This report summarises information from the April 2004 Socio-Economic Base Case report presented in draft to the Haida Gwaii / Queen Charlotte Islands Community Planning Forum in December 2003. The report provides background information from Census Canada, BC Stats, and some local sources. This information can be used as a reference to support further discussions. An overview of all economic sectors is followed by discussion of specific sectors: forestry, tourism, non-timber forest products, minerals, fishing and trapping, and the public sector.

2. Economic Structure Overview

2.1 Labour Force

- Table 1 and Table 2 (on the next page) present Statistics Canada labour force data for the HG/QCI Economic Development Area.[1,2]

- The labour force of 2,770 in 2001 was 10% higher than in 1981 despite a population decrease over this period (from 5,621 to 4,935), possibly due to an increase in labour force participation rate.

- Although 72% of the labour force was employed in 2001, only 39% of the workforce was involved in full-year, full-time work. Employment income averaged $29,329 (before tax), with approximately 10%, 28% and 53% of the workers occupied in professional, techs/trades and other occupations, respectively (BC Stats). These numbers are consistent with the averages for all Regional Districts across the province.

- The service sector labour force increased from 59% to 68% of the labour force from 1981-2001.

- There has been growth in construction and manufacturing (wood processing), despite the overall decline in the goods producing sector. Most services have been growing, except for public administration (CFB Masset closure and recent provincial cutbacks). The highest growth rate has been in business, personal and miscellaneous services.

- In the absence of land use changes, and with continued tourism expansion and an aging overall population, the service sector is expected to continue to grow and the goods producing sector is expected to continue to decline as a proportion of total economic activity – although the goods producing sector is expected to remain important.

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[1] The percentages are based on the numbers of people reporting their incomes by sector, and do not represent the person-years of employment in those sectors. There would be fewer person-years than jobs, due to part-time and/or seasonal activities.

[2] Census data is based on area of residence, which is usually but not necessarily the same as the place of employment.

Table 1 : HG/QCI Experienced Labour Force by sector (1981-2001)[a]

	1981	1991	2001	% 2001 Breakdown[b]	% Change 1981-2001
GOODS PRODUCING	1,005 (41%)	795 (32%)	865 (32%)	32%	-14%
Agriculture	20	10	15	1%	-25%
Fishing	110	95	90	3%	-18%
Forestry	585	490	530	19%	-9%
Harvesting/Forest Mgt	530	475	425	16%	-20%
Processing	55	15	105	4%	+91%
Mining	140	10	0	0%	-100%
Other Manufacturing	80	50	75	3%	-6%
Construction	70	85	140	5%	+100%
Utilities	n.a.	55	15	1%	n.a.
SERVICES PRODUCING	1,420 (59%)	1,725 (68%)	1,860 (68%)	68%	+31%
Transp., Storage & Comm.	230	200	245	9%	+7%
Wholesale & Retail Trade	210	250	355	13%	+69%
Finance, Insurance, Real Estate	45	60	60	2%	+33%
Accommodation & Food	160	240	185	7%	+16%
Business, Personal, Misc. Serv.	110	165	315	12%	+186%
Health & Education	265	335	420	15%	+58%
Public Administration[c]	400	475	280	10%	-30%
Undefined	60	0	45		
TOTAL LABOUR FORCE	2,485	2,520	2,770	100%	+10%

Source: Statistics Canada Census data for the HG/QCI Economic Development Area.

Notes: (a) Industry classifications changed between 1981 and 2001. An attempt has been made to present comparable data, but there are still some discrepancies (e.g. "undefined" in 1981). (b) Percentages are of defined labour force which may not add due to rounding error. (c) Includes federal, provincial, local governments.

Table 2 : HG/QCI Experienced Labour Force by community (1981-2001)[a]

	Masset	Port Clements	RDA D Tlell, etc.	RDA F QCC	RDA E Moresby	Old Massett & Skidegate	Total HG/QCI
GOODS PRODUCING	80	160	100	165	105	255	865
Agriculture	0	10	0	0	0	0	15
Fishing	15	0	0	15	0	60	90
Forestry	20	110	95	100	105	100	530
Harvesting	20	90	60	75	105	75	425
Processing	0	20	35	25	0	25	105
Mining	0	0	0	0	0	0	0
Other Manufacturing	25	0	5	10	0	40	75
Construction	10	40	0	40	0	50	150
Utilities	10	0	0	0	0	5	15
SERVICES PRODUCING	400	165	180	485	225	415	1,870
Transp., Storage & Comm.	35	25	20	45	85	35	245
Wholesale & Retail Trade	110	15	45	130	0	60	360
Finance, Insurance, Real Estate	0	25	0	30	10	5	70
Accommodation & Food	40	25	15	25	40	40	185
Business, Personal, Misc. Serv.	60	10	35	65	55	90	315
Health & Education	115	40	50	115	20	75	415
Public Administration[d]	40	25	15	75	15	110	280
Undefined			10			35	45
TOTAL LABOUR FORCE	480	325	290	650	330	705	2,780

Source: Statistics Canada Census data for the HG/QCI Economic Development Area.

Note: The data in Table 3 are less reliable and may differ from Table 2, due to smaller sample sizes and rounding errors.

2.2 Economic Dependency

Table 3 and Figures 1 and 2 (on the next page) present BC Stats estimates of economic dependency, based on 2001 Census data.[3] The estimates show the relative importance of different sources of "basic" income, or income flowing into a region from the outside.[4,5]

- Forestry-related harvesting and processing is the single largest source of basic income and employment in the Islands, accounting for approximately 33% of after-tax basic income and 28% of employment. There is a wide variation of dependency on forestry among communities.
- Despite the importance of forestry to the Islands' economy, about two-thirds of basic income is attributable to non-forestry sectors (e.g. public sector, pension and investment income, transfer payments, tourism, fisheries etc).
- The government sector (i.e. health / education and local / Haida / provincial / federal administration) is currently the largest source of employment and the second largest source of income on the HG/QCI. Government is important to most communities in the Islands, but particularly in Haida communities, Masset and Queen Charlotte City.
- Tourism is the third largest source of jobs, accounting for 12% of basic employment. Tourism income comprises 5% of the total, because of the seasonal nature and lower average yearly earnings in this sector.
- The commercial fishing industry, including related processing, accounts for 7% of total basic employment and 4% of income in the Islands. The industry is most important to Masset, Queen Charlotte City, and Haida communities.
- Non-employment sources of income (including government transfers, pensions and investments), are together the third most significant source of income, and account for about 17% of total basic income on the Islands.

Definitions

"Basic" industries include: (i) resource export industries such as forestry and mining, (ii) tourism and government sectors and (iii) sectors supplying industries (i) and (ii), e.g. machine shops servicing the forest industry. "Basic" income includes direct and indirect employment wages and salaries earned in basic industries as well as non-employment sources of income from outside the region (e.g. pension and investment income, government transfer payments).
"Non-basic" employment is in those businesses which serve local demand generated by re-spending of worker incomes earned in basic activities (e.g. local grocery and retail stores).
"Direct" employment is in the businesses operating in the sector, e.g. forest sector employment includes woodlands-related jobs (harvesting, log transport, log salvage, planning and administration), silviculture, and processing at mills.
"Indirect" employment is involved in supplying goods and services to firms engaged directly in a sector, e.g. machine shops, and road building and maintenance for the forest sector.
"Induced" employment is in businesses supported by the local re-spending of direct and indirect employment income, and is the same as "non-basic" employment.

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[3] Census / economic dependency data provide an overview of economic structure, but are subject to error in the cases of smaller communities, particularly on reserves, and do not fully capture part-time livelihoods and under-reported activities (e.g. trapping, mushrooms, subsistence fishing and hunting).

[4] Basic employment does not include the unemployed, but does include employment in supplier industries.

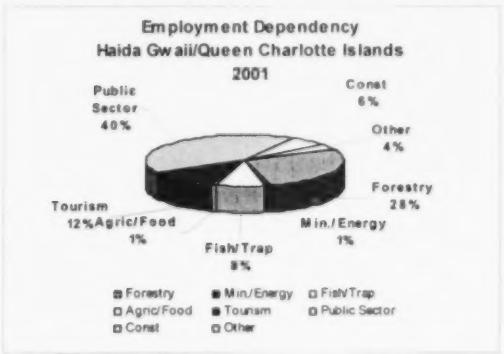
[5] The economic dependency estimates consider government as a "basic" industry because government spending and employment are determined by a number of factors external to the local economy. Also, government spending and transfer payments (e.g., employment insurance, social assistance) can increase when activity in other basic sectors decreases.

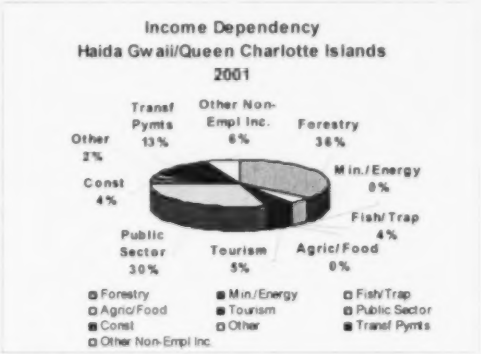
Table 3: Basic sector income and employment in Haida Gwaii / QCI (2001)[a]

	Forestry	Mining / Energy	Fish / Trap	Agric. / Food	Tour-ism	Public Sector	Const	Other [c]	Transf. Paymts	Other Non-Empl Inc. [f]	Induced Employment	Total
EMPLOYMENT [b]												
Masset	8%	0%	10%	0%	18%	48%	2%	12%				100%
Port Clements	42%	0%	0%	5%	6%	27%	16%	3%				100%
Rest of HG/QCI [d]	30%	1%	8%	1%	13%	38%	6%	3%				100%
Total HG/QCI	28%	1%	8%	1%	12%	41%	6%	4%				100%
Number of Jobs	672	14	191	20	292	966	134	95			508	
BEFORE TAX INCOME ($ millions)												
Total HG/QCI	36%	0%	4%	0%	5%	30%	4%	2%	13%	6%		100%
Income ($)	32.3	0.1	3.8	0.1	4.7	27.0	3.5	1.6	11.3	5.5	8.9	89.9[e]

Source: 2003 Community Dependency Model for Haida Gwaii / Queen Charlotte Islands - Based on 2001 Census Information (BC Stats, 2003).
(a) Percentages may not add due to rounding. Percentages are of basic employment and income (i.e. of total minus non-basic). (b) Includes direct employment plus indirect employment in related supplier industries (e.g. primary sectors include primary processing). (c) "Other" includes parts of manufacturing and transportation not already allocated to another basic industry. (d) Includes Haida communities of Old Massett and Skidegate, as well as unincorporated communities of Queen Charlotte City, Tlell and Sandspit. (e) basic income only – does not include non-basic (induced) income. (f) Non-employment income is made up of two categories. "Transfer Payments" are payments from senior governments, such as welfare payments, Old Age Security pensions, Guaranteed Income Supplements, Canada Pension Plan, Employment Insurance benefits, Federal Child Tax benefits and other income from government sources. "Other Non-Employment Income" includes investment income (such as dividends and interest), retirement pensions, superannuation, annuities, and alimony.

Figures 1 and 2 Employment and Income Dependency on Haida Gwaii/Queen Charlotte Islands





Source: 2003 Community Dependency Model for Haida Gwaii / Queen Charlotte Islands

2.3 Recent Trends

The most significant change since 2001 has been the sharp reduction in timber harvesting as indicated by Ministry of Forests (MOF) harvest billing data for 2002 and 2003. The lower harvest levels suggest that local forestry employment has also declined considerably (see section 3.4 for estimates). Provincial government downsizing in administration also occurred after 2001. This particularly affects Queen Charlotte City. There appears to be continued activity in housing and commercial construction, particularly by the Haida Nation. The number of visitors to the Islands remained fairly constant in 2001 and 2002, although anecdotal information suggests a decline in 2003.[6]

3. Forest Sector

3.1 Sector Description:

The forest sector on the Islands includes a mix of major tenure holders, some small tenure holders, small business operators, woodlot owners and salvage operators. Forestry sector employment on the Islands (and related indirect employment) includes jobs in administration, planning, inventory, assessment, layout and design, permitting, operating or supervising heavy machinery in felling, road building, skidding/yarding, loading and hauling. Trucks dump logs which are scaled to grade, sorted, and delivered to mills or loaded on barges/towed to destinations on Vancouver Island or the Lower Mainland. Site preparation, reforestation and road monitoring and deactivation activities follow after harvesting is completed.

3.2 Resource Base

The current Allowable Annual Cut (AAC) for the Queen Charlotte Forest District is 1.73 million m^3, allocated between a Timber Supply Area (TSA) and three Tree Farm Licences (TFLs) as shown in the table below. Major licensees, the BC Timber Sales (BCTS) program, woodlots and other small scale forestry and salvage operations are allocated timber volume in the TSA, and BCTS and salvage operations may also be active on some TFL's. The short and long-term sustainable harvest levels projected in the last round of Timber Supply Reviews (TSR 2) for each area are also shown in the table below.

	Current AAC[a] (m^3/year)	Projected Short-Term Sustainable Harvest Levels (TSR 2)	Projected Long-Term Sustainable Harvest Levels (TSR 2)
TSA	361,000[b] (475,000)	475,000	323,000
TFL 39 (Weyerhaeuser)	1,150,000	1,160,000	1,040,000
TFL 47 (TS Jones)	100,000	112,000	134,000
TFL 25 (Western/BCTS)	115,000	142,000	300,000
Total	**1,726,000 (1,840,000)**		**1,802,000**

Notes: (a) Allowable Annual Cut , (b) The harvest levels in the TSA have been reduced for the duration of the *Forest Act* Part 13 Order to prohibit harvesting in DuuGuusd.

[6] Moresby Island Management Committee, meeting of June 16, 2003.

The second-growth forest is large and constitutes 39% of the currently operable landbase. It is highly productive, growing much faster than was assumed in the most recent TSR. Currently the market value, stumpage appraisal and tree-to-truck logging costs indicate limited economic opportunity to harvest second-growth timber. However, licensees are optimistic that the second-growth resource will eventually become economically operable through market development, technological innovation, and industry investment[7].

3.3 Economic Activity - Historical Harvest

Overall harvest levels in the TSA and TFLs have been about 25% less than total AAC over the past several years (and even lower in 2003)., as outlined in Figure 3 below. Table 5 shows the harvest volume billed (or scaled, in the case of 2003) from the QCI Forest District. Future harvest levels cannot accurately be projected, and will depend on factors such as market conditions, productivity and economic operability of second growth timber volumes, and species and grade quality of the second growth volume.

Table 5. Historical harvest volumes from HG/QCI

QCI / HG 2001	AAC whole unit	2001 Harvest from HBS	Estimated Harvest in Plan Area	2001 Average Stumpage	2001 Estimated Revenue
QCI TSA 25	361,000	403,656	403,656	$ 13.20	$ 5,329,222
Western TFL 24	115,000	8,724	8,724	$ 10.18	$ 88,825
Western TFL 25		121,162	121,162	$ 7.99	$ 968,674
Weyerhaeuser TFL 39 Block 6	1,203,260	542,269	626,632	$ 17.17	$ 10,759,583
TimberWest TFL 47	100,000	98,368	98,368	$ 3.59	$ 352,899
Total QCI_HG	1,779,260		**1,258,543**	**$ 13.90**	**$ 17,499,203**

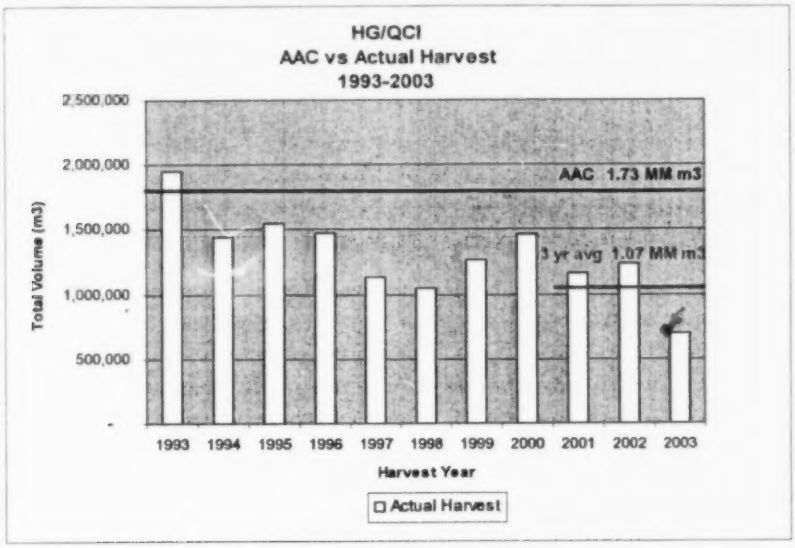
QCI / HG 2002	AAC whole unit	2002 Harvest from HBS	Estimated Harvest in Plan Area	2002 Average Stumpage	2002 Estimated Revenue
QCI TSA 25	361,000	348,823	348,823	$ 16.05	$ 5,598,611
Western TFL 24	115,000	8,798	8,798	$ 1.20	$ 10,591
Western TFL 25		54,613	54,613	$ 10.02	$ 547,212
Weyerhaeuser TFL 39 Block 6	1,150,000	743,304	743,304	$ 21.98	$ 16,336,165
TimberWest TFL 47	100,000	72,916	72,916	$ 9.48	$ 691,150
Total QCI_HG	1,726,000		**1,228,453**	**$ 18.87**	**$ 23,183,728**

QCI / HG 2003	AAC whole unit	2003 Harvest from HBS	Estimated Harvest in Plan Area	2003 Average Stumpage	2003 Estimated Revenue
QCI TSA 25	361,000	251,462	251,462	$ 23.02	$ 5,788,076
Western TFL 24	115,000	-	-	$ -	$ -
Western TFL 25		33,177	54,579	$ 10.49	$ 572,317
Weyerhaeuser TFL 39 Block 6	1,150,000	338,548	351,529	$ 20.45	$ 7,188,847
TimberWest TFL 47	100,000	72,916	72,916	$ 9.48	$ 691,150
Total QCI_HG	1,726,000		**730,486**	**$ 19.49**	**$ 14,240,389**
Three year weighted average			**1,072,494**	**$ 17.07**	**$ 18,307,774**

Source: MoF Revenue Branch, Harvest Billing System Report, April 2004

[7] Cortex Consultants, Second Growth Timber Opportunities on Haida Gwaii /QCI, 2004

Figure 3: Historical Harvest in the HG/QCI Forest District



3.4 Employment

According to BC Stats (2004), forestry accounted for about 33% of employment in 2001, down from 34% of employment in 1996 and up from 26% employment in 1991. Although the number of people employed in forestry has fallen since 1991, with a decrease in the overall workforce forestry has become a higher proportion of those employed on the Islands. Influencing current employment, overall harvest levels in the TSA and TFLs have been about 26% lower than total AAC since the year 2000 (and much lower in 2003). An estimated 17% of logging jobs are held by non-residents.[8]

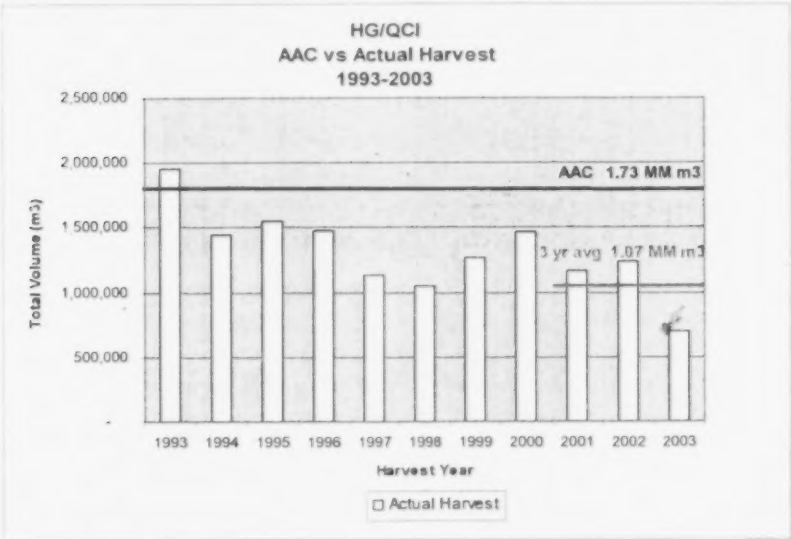
Table 6 presents estimates of employment and stumpage revenues related to harvest levels over 2001-2003.

Table 6: Economic Impact of Forest Harvesting on HG/QCI, 2001-2003

		2001	2002	2003	3 Yr Avg	Full AAC
Timber Harvest (*'000 m³*)		1,259	1,228	730	1,072	1,726
Employment *(PY)*						
HG/QCI	Direct	378	369	219	322	518
	Indirect & Induced	176	172	102	150	242
	Total	554	541	321	472	759
Province	Direct	1,573	1,536	913	1,340	2,158
	Indirect & Induced	1,951	1,904	1,132	1,662	2,675
	Total	3,524	3,440	2,044	3,003	4,833
Stumpage	*($mil./year)*	$17.5	$23.2	$14.2	$18.3	$29.5
	($/m³)	$13.90	$18.87	$19.49	$17.07	$17.07

[8] Planning Forum *Action Item 12:1 Local versus Non-local Forestry Sector Employment on the Queen Charlotte Islands/Haida Gwaii*. A local survey reported 374 employees as locals and 78 as non-locals for a total of 452 employees. These figures include all staff, office and hourly employees, and in some cases workers who have been laid off who should be working. One employer declined to provide figures. (October 27, 2004)

Figure 3: Historical Harvest in the HG/QCI Forest District



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The estimates were calculated by MSRM staff using information from Ministry of Forests TSR 2. Due to different data sources and methodologies, these figures do not match the BC Stats employment information discussed above.

The average harvest on the Islands over the 2001-2003 period was 1.07 million m^3. Associated with this harvest was an estimated 1,340 person-years of forest sector employment province-wide (322 PY on the Islands). A further 1,662 PY of indirect/induced employment were generated province-wide (150 PY on the Islands).[9] If the whole AAC were harvested and processed, forestry employment would be substantially higher.

Almost all of the timber harvested on the Islands is exported to Vancouver Island or the Lower Mainland for processing, with about 3.5% of the current harvest processed by small local mills, none of which have secure timber supply.[10] None of the major licensees does any processing on the Islands. Abfam Enterprises (Port Clements) is the largest wood processing facility, sawing a range of species for lumber having recently installed two dry kilns which provide access to the Japanese market. HG/QCI Sawmills used to saw red cedar but now produce a small number of log houses.

There are also 14 small micro-mills that do custom cutting and serve niche markets. One of the largest is a salvage mill operating at Alliford on Moresby Island. There are two cedar shingle / shake mills on the Islands, one in Masset and one in Port Clements. In addition, there are 8 secondary manufacturers providing services such as custom millwork and kiln drying, and producing a range of specialty products ranging from pallets to furniture and cabinets. A number of local artists and artisans use red and yellow cedar, alder, yew and driftwood for carvings and other wood products.

3.4 Income

As mentioned in the Overview, forestry is the dominant industrial source of income for the people of HG/QCI. According to BC Stats (2004) workers in the forest sector on the Islands had incomes totalling $32.3 million in earnings in 2001, working in forestry and logging, sawmills and other wood product manufacturing, and providing support services to government and the forest industry. Average wages were $48,065 per year, 21% higher than the $39,714/year Regional District average and 14% higher than the provincial average of $42,121/year (Community Facts, BC Stats, 2004).

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[9] Employment estimates for HG/QCI are based on coefficients of 0.30 PY/'000m^3 (direct) and 0.14 PY/'000m^3 (indirect/induced). Employment estimates for the whole province are based on coefficients of 1.25 PY/'000m^3 (direct) and 1.55 PY/'000m^3 (indirect/induced). The employment coefficients are from Table 10 on page 85 of the *Queen Charlotte Timber Supply Area Analysis Report* (Ministry of Forests, October 2000), and were developed from the results of questionnaires sent to licensees, operators, and processors in the HG/QCI TSA. The coefficients reflect the average amount of employment associated with timber harvesting during the survey period, and are not necessarily reflective of the incremental impacts of land use changes.

[10] A small proportion of timber harvested on the Islands is exported from British Columbia. Log exports from the BC coast have increased in recent years. For example, 2% of Weyerhaeuser's Block 6 harvest was exported in 2001 and 6% in 2002 (Peter Kofoed, e-mail of September 3, 2003). Western Forest Products does not export any logs out of the province (David Byng, e-mail of August 10, 2003).

4. Tourism and Recreation

4.1 Sector Description:

The tourism industry is based on the spending of non-resident travellers to the Islands on such activities as accommodation and food, recreation activities and transportation[11]. Recreation is defined as outdoor activities enjoyed by residents and non-residents of the Islands (SBC, page 39).

4.2 Resource Base

- Visitors are drawn to the Islands by opportunities for camping and beach activities, wilderness and human cultural tours, fishing, hunting, wildlife and scenic viewing. The remoteness, sense of wilderness, dramatic scenery, and abundant fish and wildlife provide natural attractions. The dynamic presence of Haida society, uncrowded areas, artisans and the Islands' unique mystique, combined with the many natural attributes, provide a compelling destination that draws visitors from around the world (Background Report, page 153).
- Six broad categories of tourist use can be identified on the Islands: commercial goods and accommodation in the main communities (which includes business travellers); fresh- and saltwater angling; guided hunting, including trophy hunting for black bear; cultural tourism, adventure tourism (e.g., kayaking, diving, and mountain biking), and other outdoor recreational activities (e.g., beach, car camping) (Background Report, page 154).
- Tourism is a growth sector and a source of economic diversification on the Islands. In the last 20 years, the growth in commercial tourism-dependent services and visitation estimates supports this conclusion. However, since 2001, growth in some activity measures (e.g. ferry traffic, air traffic, fishing activity, park visitation) appear to have levelled off;
- As shown in Table 6, a significant proportion of tourism operations are based on saltwater activities, including fishing, sailing, kayaking, heritage viewing and motor boat touring.

[11] Defined in this way, tourism would include business travellers.

Table 7: Operators by Tourism Activity for HG/QCI

Tourism activity/ service	# of operators
Accommodation - B&B, Other < 5 rooms	34
Accommodation - Hotel, Motel, Other > 5 rooms	11
Fishing Lodges	17
Camping (see footnote (a) below)	7
Marina	3
Museum	3
Golf course	2
Air Transport / Tours (see footnote (b) below)	7
Land Transport / Tours	11
Motor Boat Tours	8
Saltwater Fishing Charters	33
Sailing Adventures	6
Sea kayaking	12
Scuba diving	2
Freshwater Fishing Charters	6
Heritage Viewing	25
Hiking / Nature Viewing	6
Hunting (guide-outfitter)	1
Total	198

Source: *Haida Gwaii/Queen Charlotte Islands Background Report, op. cit.*
(a) Camping in this table refers to a business that requires a fee for service.
(b) Air transportation includes transportation on and off the Islands by larger carriers. There are 2 local air charter companies that conduct air tours.

- Eighteen marine and terrestrial sport fishing lodges were estimated to operate on the Islands in 2002. These operations included a total of 519 client beds, representing a total of 51,000 angler-days.
- Interest in Haida history, culture and art continues to grow. The ancient village sites, carvers, painters and other artisans already attract people world-wide and could be more closely linked to outdoor activities for a more complete tourism experience.

4.3 Employment and Income

Table 8: Local Tourism Sector Employment for HG / QCI

	Direct	Indirect	Total	% of Total for Islands
Employment (# jobs)	269	23	292	12%
Before-Tax Income ($mill)	4.5	0.2	4.7	5%

Source: BC Stats, 2003

- Tourism accounts for 12% of "basic" employment and 5% of employment income. The importance of tourism as a source of income is diminished by the seasonal nature and lower average yearly earnings in this sector.
- An estimated 425 seasonal/field and 95 year-round jobs are generated through saltwater lodges and guiding activities. Of this, local employment was approximately 115 jobs (50 local employment person years) with a local wages totalling $2 million (Gislason, page 10);

5. Non-Timber Forest Products

5.1 Sector Description:

There are a number of botanical or non-timber forest products such as wild mushrooms, berries and other wild foods, plants used in wildcraft and medicinal plants that are harvested on the Islands. Some of these non-timber forest products have a long history of use by the Haida.

5.2 Resource Base

Mushrooms are the most significant botanical from a commercial perspective, and currently they provide an important income supplement to the Haida and other Islands residents (SBC, page 54). Currently, commercial harvesting of other plants, such as floral greenery and medicinals, occurs at only a very small scale. Mushroom picking centres on the Islands include the Skidegate Lake area in the northern half of Moresby Island, Masset Inlet and the Yakoun River Valley.

5.3 Economic Activity

- On average 250,000 pounds of mushrooms (90% chanterelles) are harvested annually on the Islands. Exceptional years have seen as much as 350,000 pounds harvested and in poor years, less than 125,000 pounds (Tedder et al, 2000). There are generally five to eight companies that locate mushroom buyers on the Islands. Mushrooms are shipped from the Islands to Vancouver, both by air or land, and from there shipped to their final destination. The mushroom picking season normally starts sometime in August and lasts into October depending on conditions (Background Report, page 179).
- Any development of NTFPs on the QCI/HG is also constrained by business realities, such as financing, labour and transportation costs, and marketing knowledge and access. Many of these can be overcome, however, through joint venturing and cooperative approaches to reducing costs (Tedder, 2000, page ii).
- Buyers generally receive $0.50 per pound to act as a company agent. The mushrooms in 2000 averaged about $7.25 per pound when sold in the European market. Assuming a highly variable, but average harvest of 250,000 pounds, the average annual value of the mushrooms is about $1.8 million (Tedder et al, 2000).
- The high transportation costs of delivering mushrooms off-Island and the availability of lower cost products from elsewhere in North America, Eastern Europe and Turkey, challenge the local mushroom industry to compete.

5.4 Employment and Income

Currently there are no tenure, licensing requirements or regulation of the mushroom picking industry in the province (excepting private lands or Nisga'a Lands), hence government revenues from the industry are limited to provincial and federal income taxes paid based on reported income from the Islands.

In 2000 pickers received approximately $2.50 to $4.50 per pound for their efforts, however prices are variable and fell significantly after that to as low as $0.50/lb. This past year prices for all

mushrooms were low as well, and even the pine mushroom at times was getting less than $5 per pound for #1s.[12] In an average year (with production varying by up to 40% in any one year and prices varying significantly), it is estimated that up to 300 pickers (one-third locals) can earn several thousand dollars per year, harvesting 125,000 to 350,000 pounds of mushrooms on the Islands in any one year.[13]

6. Minerals

6.1 Sector Description

Haida Gwaii/Queen Charlotte Islands have a long mining history, including gold mining as early as 1859, several coal mines on Graham Island in the early 1900's, and number of small iron mines (some of which also produced copper as a by-product) on Moresby Island. The largest iron mines were Jedway, operating from 1962-68, and Tasu which employed 160 people from 1967-83 (SBC, page 55).

Currently, the most significant mineral deposit on the Islands is the Specogna gold deposit on the Harmony property (previously called Cinola). It is located 18 kilometres south of Port Clements near the Yakoun River. A proposal for a large open pit operation was dropped in 1990 due to environmental concerns, including unusually high concentrations of mercury. In addition to iron-copper deposits such as Tasu and Jedway, and the gold deposits such as the Specogna, the area also has important potential for high grade copper-lead-zinc-gold deposits and low grade copper deposits similar to the potential identified at Myra Falls and Island Copper on Vancouver Island.

There are no producing mines, but 10 sand and gravel operations and private quarries operate intermittently. There is an important argillite quarry near Kagan Bay (used for traditional, highly valued Haida carvings) and another is also located on Graham Island producing rhyolite or "picture rock" that is sold in gift shops in Tlell. Agates of all sizes and colours, used by local lapidarians for jewellery, are easily found on the Islands' beaches (SBC, page 55).

6.2 Resource Base

In total (i.e., including the argillite / rhyolite quarries and the Specogna deposit), there are 157 mineral occurrences in the Islands (95 metallic, 46 industrial mineral, 8 bitumen, 1 hot spring, and 7 coal). Most of these occurrences are showings, but 18 are prospects having some dimension or value , 9 are developed prospects in which there is a high degree of confidence in the tonnage and grade and 21 are past-producing mines although all but 5 of these have been relatively small (i.e., produced less than 500 tonnes).[14] (SBC, page 56).

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[12] Tedder, S. personal communication, Nov. 2004

[13] *Seeing the Forest Beneath the Trees: The Social and Economic Potential of Non-Timber Forest Products and Services in the Queen Charlotte Islands / Haida Gwaii*, S. Tedder, et al, 2000. See also Nelly de Geus, Draft Report on the *Agroforestry Industry in B.C: Identification of Issues, Responsibilities, and Opportunities for the Ministry of Forests* (July 29, 1993).

[14] Source: MINFILE, the provincial database that tracks information about known mineral occurrences.

6.3 Current Activity

Approximately $22 million (in $1992) was spent on exploration activity on the Islands over the 1957-1999 period. Eight million dollars ($1992) worth of this activity occurred during the 1986-99 period, and focused on gold, due in large part to activity on the Specogna property. Mapping completed by the Geological Survey of Canada, provided a much improved data base and a more extensive logging road network, thereby encouraging greater exploration activity during this period. More recently, exploration expenditures have fallen to virtually zero. No mineral notices of work were submitted in 2001 or 2002.[15]

Mining accounts for some employment in sand/gravel and quarry operations. Growth potential is difficult to predict due to the "hidden" nature of the resource (SBC, page 6).

6.4 Employment and Income

Census data for 2001 indicated no labour force in the mining sector, which likely understates the contribution of periodic quarry operations to local livelihoods[16] (SBC, page 54).

Table 7: Mining Sector local employment for HG/QCI

	Direct	Indirect	Total	% of Island Total
Employment	10	4	14	1%
Before-Tax Income	0	0.1	0.1	0

7. Fishing

7.1 Sector Description

Census data for 2001 indicated a total labour force of about 90 in fish harvesting and 45 in fish processing (BC Stats, 2004). These statistics are not supported by local information, which indicates that most of the fisheries employment is in processing, and that most trolling licenses are held by owner/operators based out of ports on Vancouver Island and the Lower Mainland.[17]

In the early 1990s there were approximately 80 resident salmon vessels. However, the current number of salmon vessels (approximately 12),[17] is much lower, due to declines in salmon stocks, the impacts of the related salmon fleet reduction program, and more recent harvest restrictions designed to protect weaker coho and chinook stocks. It is estimated that approximately 90 people in the commercial salmon fisheries sector and related activities lost jobs since 1996 as a result of fleet reduction and area licensing.[18] Local processors have had to diversify their product, away from salmon and more into processing local fisheries in-season.

[15] Source: ARIS provincial government database that tracks work done on mineral tenures.
[16] Labour force data is based on primary occupations and therefore does not adequately reflect some part time or seasonal sources of livelihood.
[17] Pers. comm., Victor Fradette, DFO.
[18] See *Fishing for Money*, op. cit.

Currently, there are no commercial finfish aquaculture operations in the Islands. There is one small commercial shellfish aquaculture operation at Kagan Bay. There are also some shellfish culture pilot projects being undertaken by the Haida (e.g. oysters, mussels and scallops) in cooperation with the Ministry of Agriculture, Fisheries and Food (MAFF). Early production results from these projects are encouraging, although distance to markets is a constraint to economic viability.[19] The Haida are also involved in an abalone restoration project with Fisheries and Oceans Canada (DFO).

7.2 Fisheries Resources

The Yakoun River and Pallant Creek are probably the most important salmon streams on the Islands to local commercial fishers, and there are large number of smaller streams which cumulatively produce significant numbers of salmon caught in commercial, sport and subsistence fisheries.[20] However, the major source of income for most commercial fishers (including Haida) is from large, non-local stocks, e.g. Skeena and Nass River stocks, as well as Alaskan.

Interviews with staff from DFO and Ministry of Agriculture, Food and Fisheries (MAFF) indicate that most salmon stocks on the Islands are generally below historic levels, as they are in many other areas in British Columbia, due to the cumulative effects of factors such as over-fishing (particularly of smaller, weaker stocks), habitat degradation and ocean survival factors.[21]

Halibut, salmon, crab and herring are the most important fisheries, but herring roe-on-kelp is an important source of livelihood for Haida Nation fishers. Most fisheries are seasonal in nature, but there are some local fishers who are employed year round for crabs, shrimp and prawn and ground fish.

7.3 Economic Activity

Salmon and non-salmon species are also an important food source for all residents of the Islands, and particularly for the Haida Nation.

No data for non-salmon are readily available. Estimates provided by DFO indicate an average salmon harvest of about 27,000 pieces for Haida subsistence and social purposes for the years 2002-2003, although the amount in any given year can vary substantially depending on the size of the runs. Most of this harvest is taken in ocean fisheries, but terminal or instream food harvests are still an integral part of Haida culture.[22] Sockeye accounts for most of salmon consumption.

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[19] Pers. comm., Bill Heath, Shellfish Production Specialist, MAFF.
[20] For a more complete description of local salmon streams and stocks see *Background Report*, op. cit.
[21] Escapement data provided by E.A. Perry, Executive Director, Habitat and Enhancement Branch, DFO.
[22] Source: Victor Fradette, DFO, based on data from the Haida Fisheries Program and other sources.

7.4 Local Employment and Income

Table 10: Fisheries Sector local employment and incomes for HG/QCI

	Direct	Indirect	Total	% of Island Total
Employment (# jobs)	167	23	190	8
Before-Tax Income ($ millions)	3.4	0.4	3.8	4

Source: BC Community Dependency Model, BC Stats, 2003

Provincially, there has been a rationalization and increasing concentration of fish processing in the larger centres, particularly the lower mainland.[23] This trend has not been evident on the Islands, where processing for commercial, non-salmon species and sport salmon catches appears to be growing.

8. Public Sector

8.1 Sector Description

The Public Sector includes jobs involved in providing government services to the Islands in sub-sectors such as Education, Health Care, Social Services, Municipal Government, BC Ferries, Justice and Security (Policing) for the 4,935 permanent residents of the Islands in 2001. Funds that form the federal and provincial government resource base for redistribution to programs are collected in the form of taxes – income, corporate, municipal, consumptive taxes (i.e. PST and GST), licensing fees, resource rents (i.e. stumpage), WCB and other health insurance premiums.

8.2 Local Employment and Income

In 2001, the Public Sector accounts for 966 jobs and $27.1 million in before-tax income on the Islands. The Public Sector also supports an estimated 49 person-years induced employment, for example in retail and personal service industries.

Table 11: Public Sector employment and after-tax incomes for HG/QCI in 2000

	Direct	Indirect	Total	% of Island Total
Employment	848	118	966	41%
Before-Tax Income ($ millions)	$25.2	$1.9	$27.1	30%

[23] The exception has been processing for farmed finfish, which has actually increased in rural areas. See *Socio-Economic Impacts of Existing Salmon Farming Operations in British Columbia*, Marvin Shaffer and Assoc., for the Environmental Assessment Office, Draft, February, 1997.

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